Preliminary Amendment
U.S.S.N. 10/621,079
Page 2 of 15

IN THE SPECIFICATION:

Please replace Paragraph Number [0002] of the published application with the following rewritten paragraphs – which include the PTO noted missing information (shown underlined), which was inadvertently and unintentionally cut off by the printer when the original application was filed. Support for this information comes from the priority Provisional Application, the contents of which were incorporated herein by reference:

[0002]   The present invention relates generally to any plating solution and methods for monitoring its performance. More specifically, the present invention relates to plating baths and methods for monitoring their plating functionality based on chemometric analysis of voltammetric data obtained for these baths. More particularly, the method of the present invention relates to the application of numerous chemometric techniques to describe quantitatively plating bath functionality in order to maintain proper performance of the baths.

BACKGROUND OF THE INVENTION

Sources of Improper Performance of Plating Bath

A typical plating bath solution comprises a combination of several different chemical constituents. The specific constituents vary depending upon the type of plating bath. The concentration levels of constituents are important determinants of the quality of the resultant plating deposit. The characteristics of the plating deposit, including tensile strength, ductility, solderability, uniformity, brighteness and resistance to thermal

shock, depend on concentrations of constituents. Should the constituents fall outside of required concentration ranges, however, the bath may fail to satisfactorily perform its

Preliminary Amendment
U.S.S.N. 10/621,079
Page 3 of 15

plating function. It is therefore important that deliberately added constituent concentrations are regularly and accurately monitored. Current techniques for plating bath components analysis, recently reviewed by Wikiel et al. [1], do not employ reliable calibration methods employing multivariate data analysis capable of detecting outliers.

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